

Abstract of the Disclosure

A totally integrated system for automatic formation flight control of multiple vehicles not limited to aircraft, helicopters, or space platforms. For instance, the system may be used to control any number of aircraft in a pre-determined flight formation and provide "positive" identification, control and discrete communications between any number of vehicles. Thus the invention prevents mid-air collisions between vehicles in formation flight. The system generally includes a processor located on the vehicles to enable communications, unique position computations and control messaging between any number of aircraft in formation flight, a communications transceiver located on the vehicle that provides discrete communication links to any number of aircraft in formation flight, an autopilot and a display. The processor may take into consideration velocity, direction, winds aloft, wing tip clearance of any number of vehicles. On aircraft, the system will display the current formation and vehicles relative position under control by this invention. The system may be overridden in flight.